

Amendments to the Drawings:

The attached three sheets of drawings include changes to Fig. 1, FIG. 2 and FIG. 5.

These sheets add the legend "Prior Art" each of the three drawings previously omitted.

Attachment: Replacement Sheets.

REMARKS/ARGUMENTS

Examiner Chaudry is thanked for his thorough examination of the subject Patent Application. The Claims have been have been carefully reviewed, several Claims have been amended in response to the Examiner's kind comments, and all Claims are now considered to be in condition for Allowance.

FIG. 1, FIG. 2 and FIG. 5 were corrected to designate each as "Prior Art".

Claims 6 through 39 were cancel as a result of the election, with traverse, of the species of Group 1: claims 1-5. Claims 6 through 39 will form a part of a divisional patent later.

Reconsideration of the rejection of Claims 1-5 under 35 U.S.B. 103(a) as being unpatentable over Miyanchy et al. (hereafter Miyanchy) USPPN 2003/0106011 further in view of Zeng et al. (herein after: Zeng, "Design and Implementation of a Turbo Decoder for 3G W-CDMA System", published March 11, 2002 and cited in applicants IDS), is requested, in light of the following.

Claim 1 was amended to differentiate the present claimed invention from Zeng.

Every turbo decoder requires branch metric calculations in both the forward state metrics and the backward state metrics calculations. In Miyauchi, as the

Examiner points out, modulo arithmetic operations are not taught. Zeng uses modulo arithmetic, but when overflow occurs, Zeng normalizes all state metrics (pg. 287, second paragraph). This adds time consuming steps that affects performance. Zeng also notes that some approaches were taken to prevent overflow, but Zeng found that the overflow prevention could not easily be implemented.

In the present claimed invention modulo arithmetic and the log domain is used to avoid scaling and normalization (pg. 18, paragraph starting on line 13). This allows the present claimed invention to avoid the time necessary to normalize the state metrics, and therefore, produces superior performance. Thus the present claimed invention avoids the overflow/underflow and normalization operations in Zeng.

All Claims are now considered to be in condition for allowance.

Allowance of all Claims is Requested.

It is requested that should Examiner Chaudry not find that the Claims are now allowable, that he call the undersigned at (845) 452-5863 to overcome any problems preventing allowance.

Respectively submitted,

A handwritten signature in black ink, appearing to read 'SBA', with a long horizontal flourish extending to the right.

Stephen B. Ackerman,

Reg. No. 37,761

Attachments